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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

DL/T 1338-2014

**Specification of real-time supervision and management
information system for power generation enterprises**

发电企业生产实时监管信息系统技术条件

(English Translation)

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Foreword

This Standard is drafted according to the rules given in GB/T 1.1-2009 Directives for standardization - Part 1. Structure and drafting of standards.

This Standard was proposed by China Electricity Council.

This Standard shall be under the jurisdiction of Electric Power Industry Thermal Automation and Information Standardization Technical Committee.

Drafting organizations of this Standard. Xi'an Thermal Power Research Institute Co., Ltd. and China Huaneng Group.

Main drafters of this Standard. Ge Xin, He Xin, Yang Dong, Guo Sen, Fan Weining, Li Zhenhua, Wang Zhihui and Zhu Guihong.

Comments or proposals in the implementation of this Standard shall be feed-backed to Standardization Management Center of China Electricity Council (No.1, 2nd lane, Baiguang Road, Beijing, 100761).

Specification of realtime of supervision and management
information system for power generation enterprises

1 Scope

This Standard specifies the hardware and software configuration, applications, system security, documentation, acceptance and other technical requirements of realtime supervision and management information system for power generation enterprises.

This Standard applies to the management of plan-design, purchase, acceptance and other processes of realtime supervision and management information system for power generation enterprises.

2 Normative references

The following documents are indispensable for application of this document. For the dated documents so quoted, only the dated versions apply to this document. For the undated documents so quoted, the latest versions (including all modification sheets) apply to this document.

GB4208 Degrees of protection provided by enclosure (IP code) (GB 4208-2008, IEC 60529:2001, IDT)

GB/T8567 Guidelines for computer software product development documentation (GB/T 8567-2006, ISO/IEC JTC1 SC7N2106-1999, NEQ)

GB/T 17859 Classified criteria for security protection of computer information system (GB/T 17859-1999, DOD 5200.28-STD, NCSC-TG-005)

GB 50229 Code for design of fire protection for fossil fuel power plants and substations

DL/T 262 On-line calculation guide for coal consumption of generating units

DL/T 924-2005 Specification for supervisory information system for plant level of fossil fuel power plant

DL/T950 Guide for power plant identification system

State Electricity Regulatory Commission No.5 Order - Electric Power Secondary System Security Protection Regulation

State Electricity Regulatory Commission Electricity Regulatory Safety (2006) No.34 - Electric Power Secondary System Security Protection Overall Program

3 Terms and definitions

For the purpose of this document, terms and definitions defined in DL/T924-2005 AND the following terms and definitions shall apply.

3.1

Realtime supervision and management information system

Information system that supervises and manages the production process through production process realtime/ historical data platform for power generation enterprises based on multiple power plants (companies).

3.2 Supervisory information system for plant level; SIS

Realtime supervision and management information system that service for realtime production process comprehensive optimization of the whole plant through production process realtime/ historical data platform for thermal power plant.

[Definition 3.1 in DL/T 924-2005]

3.3

Function computer and client computer

Computers or servers with SIS application functions and management functions are called function computers, including database servers, application software function computers or servers, system backup servers, anti-virus servers, maintenance and management computers, etc. Other computer working stations in the system are called client computers.

[Definition 3.2 in DL/T 924-2005]

4.1 The implementation of the system shall be able to be done step-by-step according to

the actual requirements and technology development plan-design. The system shall insist on reliable, versatile and scalable principles.

4.2 The metrological unit shall comply with national standards and provisions for common

physical and legal metrological units. The data-marker design shall follow the requirements of DL/T 950.

4.3 The data scale of realtime/historical database shall be determined according to

requirements of system construction and development. The collection content and collection code of data shall be standardized and unified; the data information processing shall be standardized and unified; the accuracy, comparability and maintainability of data at measuring points shall be ensured; the function of checking the data quality shall be provided to facilitate the check and maintenance of data.

hot plug/unplug redundant power supplies and hot-plug / unplug redundant fans.

Non-core switches can use parts according to the specific situation.

5.2.2 Database servers

Use redundant arrays of inexpensive disks shared by database servers; it can use independent storage systems shared by networks. It can use database server systems with redundancy configuration or fault tolerant database server systems. Database server systems with redundancy configuration shall support the automatic failure switch-over through cluster working mode.

5.2.3.1 Use redundancy mode; the caching of data shall be able to include at least

production process information within one week; Support the wake-one-LAN and be able to send the data in buffer memory to the database server automatically when the network communication returns to normal.

5.2.3.2 Remote communication shall be able to do with collection stations at power plants;

the unit running information shall be able to obtain from the collection stations at power plants in real time.

5.2.4.1 Use redundancy mode; the caching of data shall be able to include at least

production process information within one week; Support the wake-one-LAN and be able to send the data to caching them in the database server automatically when the network